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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/919,555	07/31/2001	Herbert F. Cattell	10010326-2	4382

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AGILENT TECHNOLOGIES, INC.
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EXAMINER

FORMAN, BETTY J

ART UNIT	PAPER NUMBER
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1634

DATE MAILED: 02/18/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/919,555	Applicant(s) CATTELL ET AL.	
	Examiner BJ Forman	Art Unit 1634	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 December 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2,4-16,45 and 46 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,4-16,45 and 46 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>11/03</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 10 December 2003 has been entered.

Status of the Claims

2. This action is in response to papers filed 10 December 2003 in which claims 1, 2, 10 were amended. All of the amendments have been thoroughly reviewed and entered.

The previous rejections in the Office Action dated 11 June 2003 are withdrawn in view of the amendments. All of the arguments have been thoroughly reviewed and are discussed below. New grounds for rejection necessitated by amendment are discussed.

Claims 1, 2, 4-16, 45 and 46 are under prosecution.

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Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1, 2, 4-16, 45-46 are provisionally rejected under 35 U.S.C. 102(e) as being anticipated by copending Application No. 09/775,387 which has a common inventor with the instant application. Based upon the earlier effective U.S. filing date of the copending application, it would constitute prior art under 35 U.S.C. 102(e), if published under 35 U.S.C. 122(b) or patented. This provisional rejection under 35 U.S.C. 102(e) is based upon a presumption of future publication or patenting of the copending application.

This provisional rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the copending application was derived from the inventor of this application and is thus not the invention “by another,” or by an appropriate showing under 37 CFR 1.131. This rejection may not be overcome by the filing of a terminal disclaimer. See *In re Bartfeld*, 925 F.2d 1450, 17 USPQ2d 1885 (Fed. Cir. 1991).

Regarding Claim 1, Cattell discloses a method of generating an addressable array of chemical moieties on a substrate comprising: depositing the moieties onto different regions of the substrate so as to fabricate the array; before the array has been exposed to a sample saving in a memory array related data comprising machine readable (e.g. bar code, ¶ 40) instructions for reading the array and/or instruction of processing the array; and shipping the fabricated array and forwarding the array related data to a location remote from where the array is

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fabricated (§ 6) wherein the instructions for reading or processing the array includes information regarding feature errors which are detected, communicated to the fabrication station and added to the memory before subsequent users expose the arrays to a sample (§ 45 and Fig. 6) wherein during array fabrication information required for reading and processing the array (e.g. missing features, misplaced feature, features of incorrect dimension, other physical characteristics) is stored such that the person reading data from the array will interpret the data correctly (§ 5, 11, 15, 41, 45).

Regarding Claim 2, Cattell discloses a method of generating an addressable array of chemical moieties on a substrate comprising: depositing the moieties onto different regions of the substrate so as to fabricate the array; before the array has been exposed to a sample saving in a memory array related data comprising machine readable (e.g. bar code, § 40) instructions for reading the array or instruction of processing the array; wherein array related data is saved in association with an identifier (i.e. bar code, § 40); applying the identifier to the substrate or housing carrying the substrate; and shipping the fabricated array and forwarding the array related data to a remote location (§ 39-41) wherein the instructions for reading or processing the array includes information regarding feature errors which are detected, communicated to the fabrication station and added to the memory before subsequent users expose the arrays to a sample (§ 45 and Fig. 6) and wherein during fabrication information required for reading and processing the array (e.g. missing features, misplaced feature, features of incorrect dimension, other physical characteristics) is stored such that the person reading data from the array will interpret the data correctly (§ 5, 11, 15, 41, 45).

Regarding Claim 4, Cattell discloses the method wherein the chemical moieties are biopolymers (§ 24).

Regarding Claim 5, Cattell discloses the method wherein the biopolymers are DNA (§ 24).

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Regarding Claim 6, Cattell discloses the method wherein the memory is a database and the method additionally comprises retrieving the array related data from the memory and communicating the retrieved data to a remote location in response to receiving a communication of the identifier from the remote location (§ 36- 40).

Regarding Claim 7, Cattell discloses the method wherein the memory comprises a portable storage medium, the method further comprising shipping the portable medium to a remote location e.g. bar codes illustrated in Fig. 1, # 356 and 358 (§ 40 and Fig. 6).

Regarding Claim 8, Cattell discloses the method wherein the portable storage medium is shipped to the same remote location as the array (§ 40 and Fig. 6).

Regarding Claim 9, Cattell discloses the method further comprising applying a communication address to the substrate or housing wherein the address identifies a remote location from which the identity map will be communicated in response to a received communication of the associated map identifier (§ 40).

Regarding Claim 10, Cattell discloses a method of generating, at a central fabrication station, an addressable array of chemical moieties on a substrate comprising: depositing the moieties onto different regions of the substrate so as to fabricate the array; before the array has been exposed to a sample saving in a memory array related data said data comprising machine readable (e.g. bar code, § 40) instructions for reading the array or instruction of processing the array; wherein array related data is saved in association with a map identifier; applying the identifier to the corresponding substrate or housing carrying the corresponding substrate; and shipping the fabricated array and forwarding the array related data to a remote location (§ 27 and 40) and wherein during fabrication information required for reading and processing the array (e.g. missing features, misplaced feature, features of incorrect dimension, other physical characteristics) is stored such that the person reading data from the array will interpret the data correctly (§ 5, 11, 15, 41, 45).

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Regarding Claim 11, Cattell discloses the method wherein the chemical moieties are biopolymers (§ 24).

Regarding Claim 12, Cattell discloses the method wherein the biopolymers are DNA (§ 24).

Regarding Claim 13, Cattell discloses the method wherein the memory is a database the method additionally comprising retrieving the array related data for arrays from the memory and communicating the data to a remote locations in response to receiving a communication of associated identifiers from the remote location (§ 36-40).

Regarding Claim 14, Cattell discloses the method wherein for each of the multiple array the corresponding identify map and associated identifier are saved on a memory comprising a portable computer readable storage medium the method additionally comprising shipping the portable storage mediums to multiple remote locations (§ 40 and Fig. 6).

Regarding Claim 15, Cattell discloses the method wherein each of the portable storage mediums are shipped with the corresponding fabricated array to the same remote location from which the set of biopolymers used in fabricating the array was received (§ 40 and Fig. 6).

Regarding Claim 16, Cattell discloses the method further comprising applying a same communication address to each of the substrates or housings wherein the address identifies a remote location from which the identity map will be communicated in response to a received communication of the associated map identifier (§ 40).

Regarding Claim 45-46, Cattell discloses the method wherein the array related data includes an indication as to whether a particular type of control probe is present i.e. the data includes "any biological information on an array feature" (§ 39 e.g. complement). Because a control probe is biological and because the data of Cattell includes any biological information, the data of Cattell includes an indication as to whether a particular type of control probe is present.

Response to Arguments

5. Applicant argues that the '387 application is drawn to retrieving biological function data for arrayed biopolymers but does not teach the instantly claimed machine readable instructions. The argument has been considered but is not found persuasive because, as cited above, the '387 application clearly teaches saving into memory machine readable instructions for reading and or processing data from the array (§ 5, lines 10-17) and quality control information (§ 39, lines 18-23 and § 40, lines 1-7). Hence, the '387 application teaches the method as claimed.

6. Claims 1, 2, 4-16 are rejected under 35 U.S.C. 102(e) as being anticipated by Cattell, H. (U.S. Patent No. 6,180,351, filed 22 July 1999).

The applied reference has a common inventor with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

Regarding Claim 1, Cattell discloses a method of generating an addressable array of chemical moieties on a substrate comprising: depositing the moieties onto different regions of the substrate so as to fabricate the array (Column 2, line 60-Column 3, line 5 and Claim 1); before the array has been exposed to a sample saving in a memory array related data said data comprising instructions for reading the array or instruction of processing the array (Column 5,

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lines 41-48); and shipping the fabricated array and forwarding the array related data to a remote location (Column 3, line 55-Column 4, line 9 and 33-43 and Claims 10-11) and wherein the array comprises machine readable identifier containing information regarding processing and/or reading the array (Column 5, lines 41-48 and Column 12, lines 18-35).

Regarding Claim 2, Cattell discloses a method of generating an addressable array of chemical moieties on a substrate comprising: depositing the moieties onto different regions of the substrate so as to fabricate the array (Column 2, line 60-Column 3, line 5 and Claim 1); before the array has been exposed to a sample saving in a memory array related data said data comprising instructions for reading the array or instruction of processing the array (Column 5, lines 41-48; wherein array related data is saved in association with an identifier (Column 4, lines 33-43); associating the identifier with the array (Column 4, lines 34-37 and Claim 12); and shipping the fabricated array and forwarding the array related data to a remote location (Column 3, line 55-Column 4, line 9 and Claims 10-11) and applying the identifier to the substrate or housing carrying the substrate (Column 3, line 64-Column 4, lines 2) and wherein the array comprises machine readable identifier containing information regarding processing and/or reading the array (Column 5, lines 41-48 and Column 12, lines 18-35).

Regarding Claim 4, Cattell discloses the method wherein the chemical moieties are biopolymers (Column 2, lines 60-64 and Claim 3).

Regarding Claim 5, Cattell discloses the method wherein the biopolymers are DNA (Column 2, lines 60-64 and Claim 4).

Regarding Claim 6, Cattell discloses the method wherein the memory is a database and the method additionally comprises retrieving the array related data from the memory and communicating the retrieved data to a remote location in response to receiving a communication of the identifier from the remote location (Column 3, lines 28-43 and Column 12, lines 39-43).

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Regarding Claim 7, Cattell discloses the method wherein the memory comprises a portable storage medium, the method further comprising shipping the portable medium to a remote location e.g. bar codes illustrated in Fig. 4, # 356 and 358 (Column 9, lines 65-Column 10, line 4).

Regarding Claim 8, Cattell discloses the method wherein the portable storage medium is shipped to the same remote location as the array (Column 9, lines 65-Column 10, line 4).

Regarding Claim 9, Cattell discloses the method further comprising applying a communication address to the substrate or housing wherein the address identifies a remote location from which the identity map will be communicated in response to a received communication of the associated map identifier (Column 10, line 65-Column 50).

Regarding Claim 10, Cattell discloses a method of generating, at a central fabrication station, an addressable array of chemical moieties on a substrate comprising: depositing the moieties onto different regions of the substrate so as to fabricate the array (Column 2, line 60-Column 3, line 5 and Claim 1); before the array is exposed to a sample saving in a memory array related data said data comprising, instructions for reading the array or instruction of processing the array (Column 5, lines 41-48); wherein array related data is saved in association with a map identifier (Column 4, lines 33-43); applying the identifier to the corresponding substrate or housing carrying the corresponding substrate (Column 4, lines 34-37 and Claim 12); and shipping the fabricated array and forwarding the array related data to a remote location (Column 3, line 55-Column 4, line 9 and Claims 10-11 and Claim 14) and wherein the array comprises machine readable identifier containing information regarding processing and/or reading the array (Column 5, lines 41-48 and Column 12, lines 18-35).

Regarding Claim 11, Cattell discloses the method wherein the chemical moieties are biopolymers (Column 2, lines 60-64 and Claim 3).

Regarding Claim 12, Cattell discloses the method wherein the biopolymers are DNA (Column 2, lines 60-64 and Claim 4).

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Regarding Claim 13, Cattell discloses the method wherein the memory is a database the method additionally comprising retrieving the array related data for arrays from the memory and communicating the data to a remote locations in response to receiving a communication of associated identifiers from the remote location (Column 3, lines 28-43 and Column 12, lines 39-43).

Regarding Claim 14, Cattell discloses the method wherein for each of the multiple array the corresponding identify map and associated identifier are saved on a memory comprising a portable computer readable storage medium the method additionally comprising shipping the portable storage mediums to multiple remote locations (Column 9, lines 65-Column 10, line 52 and Claim 14)

Regarding Claim 15, Cattell discloses the method wherein each of the portable storage mediums are shipped with the corresponding fabricated array to the same remote location from which the set of biopolymers used in fabricating the array was received (Column 3, line 55-Column 4, line 10).

Regarding Claim 16, Cattell discloses the method further comprising applying a same communication address to each of the substrates or housings wherein the address identifies a remote location from which the identity map will be communicated in response to a received communication of the associated map identifier (Column 10, line 65-Column 50 and Claim 14 (d) shipping each of the fabricated arrays....**to one** or more of the remote locations, lines 36-63).

Response to Arguments

7. Applicant argues that the memory information of the '351 patent includes layout information e.g. feature size, position or identity, but does not include the instantly claimed information on how to read or process the array. The argument has been considered but is not found persuasive because, as cited above, the '351 patent teaches the array comprising a

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machine readable identifier containing information regarding processing and/or reading the array (Column 5, lines 41-48 and Column 12, lines 18-35).

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 1, 2, 4-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Perttunen et al (U.S. Patent No. 5,968,728, issued 19 October 1999) in view of Ellison et al (U.S. Patent Application Publication No. 2002/0086319A1, filed 13 November 2000).

Regarding Claim 1, Perttunen et al teach a method of generating an addressable array of chemical moieties on a substrate comprising: depositing the moieties onto different regions of the substrate so as to fabricate the array; before the array has been exposed to a sample, saving in a memory array related data said data comprising instructions for reading the array or instruction of processing the array (Column 3, lines 54-67) wherein the array and array related data is utilized by an end user (Column 8, lines 38-41 and Column 9, lines 63-Column 10, lines 2) which clearly suggests that the array is sent from the place of origin but they do not specifically teach shipping the fabricated array and forwarding the array related data to a

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remote location. However, shipping arrays to end users was well known in the art at the time the claimed invention was made as taught by Ellison et al. Ellison et al teach a similar method for generating an addressable array of chemical moieties comprising depositing moieties onto different regions of the substrate, saving in a memory array related data and shipping the array and forwarding the array related data to a remote location i.e. to shipping address contained in the machine readable information (§ 8). It would have been obvious to one of ordinary skill in the art at the time the claimed invention was made to apply the shipping of Ellison et al to the arrays of Perttunen et al and, based on the location of the end user, ship the arrays to the end user for the obvious benefits of shipping e.g. convenience and availability.

Regarding Claim 2, Perttunen et al teach a method of generating an addressable array of chemical moieties on a substrate comprising: depositing the moieties onto different regions of the substrate so as to fabricate the array; before the array has been exposed to a sample, saving in a memory array related data said data comprising instructions for reading the array or instruction of processing the array (Column 3, lines 54-67) wherein the array related data is saved in association with an identifier i.e. id code; wherein the identifier is associated with the array by applying the identifier to the substrate or housing carrying the substrate (Column 4, line 61-Column 5, line 7 and Fig. 10-12) (Column 7, line 40-Column 8, line 62, Fig. 10, # 112 & 114, Fig. 11, # 132 & 136 and Fig. 12, # 146) wherein the array and array related data is utilized by an end user (Column 8, lines 38-41 and Column 9, lines 63-Column 10, lines 2) which clearly suggests that the array is sent from the place of origin but they do not specifically teach shipping the fabricated array and forwarding the array related data to a remote location. However, shipping arrays to end users was well known in the art at the time the claimed invention was made as taught by Ellison et al. Ellison et al teach a similar method for generating an addressable array of chemical moieties comprising depositing moieties onto different regions of the substrate, saving in a memory array related data and shipping the array

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and forwarding the array related data to a remote location i.e. to shipping address contained in the machine readable information (§ 8). It would have been obvious to one of ordinary skill in the art at the time the claimed invention was made to apply the shipping of Ellison et al to the arrays of Perttunen et al and, based on the location of the end user, ship the arrays to the end user for the obvious benefits of shipping e.g. convenience and availability.

Regarding Claim 4, Perttunen et al teach the method wherein the chemical moieties are biopolymers (Column 4, lines 13-26).

Regarding Claim 5, Perttunen et al teach the method wherein the biopolymers are DNA (Column 4, lines 13-26).

Regarding Claim 6, Perttunen et al teach the method wherein the memory is a database and the method additionally comprises retrieving the array related data from the memory and communicating the retrieved data to a remote location in response to receiving a communication of the identifier from the remote location (Column 8, lines 38-54).

Regarding Claim 7, Perttunen et al teach the method wherein the memory comprises a portable storage medium e.g. bar code, the method further comprising shipping the portable medium to a remote location to the end user (Column 7, line 40-Column 8, line 62, Fig. 10, # 112 & 114, Fig. 11, # 132 & 136 and Fig. 12, # 146).

Regarding Claim 8, Perttunen et al teach the method wherein the portable storage medium is shipped to the same remote location as the array i.e. user (Column 8, lines 35-42).

Regarding Claim 9, Perttunen et al teach the method wherein the substrate has applied thereto array related data e.g. identification code (Column 8, lines 1-19) but they do not teach the identification code comprises a communication address. However, Ellison et al teach the similar method of generating an array wherein the array has applied thereto identification code including a communication address from with the identity map will be communicated i.e. customer (§ 8) wherein the address on the substrate identifies customer and/or billing information. It would have been obvious to one of ordinary skill in the art at the time the

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claimed invention was made to include the communication address as taught by Ellison et al in the identification code on the substrate of Perttunen et al to thereby identify customer via the address as taught by Ellison et al (§ 8).

Regarding Claim 10, Perttunen et al teach a method of generating, at a central fabrication station, an addressable array of chemical moieties on a substrate comprising: depositing the moieties onto different regions of the substrate so as to fabricate the array; before the array has been exposed to a sample, saving in a memory array related data said data comprising instructions for reading the array or instruction of processing the array (Column 3, lines 54-67) wherein the array related data is saved in association with an identifier i.e. id code; applying the identifier to the corresponding substrate or corresponding housing (Column 7, line 40-Column 8, line 62, Fig. 10, # 112 & 114, Fig. 11, # 132 & 136 and Fig. 12, # 146) wherein the array and array related data is utilized by an end user (Column 8, lines 38-41 and Column 9, lines 63-Column 10, lines 2) which clearly suggests that the array is sent from the place of origin but they do not specifically teach shipping the fabricated array and forwarding the array related data to a remote location. However, shipping arrays to end users was well known in the art at the time the claimed invention was made as taught by Ellison et al. Ellison et al teach a similar method for generating an addressable array of chemical moieties comprising depositing moieties onto different regions of the substrate, saving in a memory array related data and shipping the array and forwarding the array related data to a remote location i.e. to shipping address contained in the machine readable information (§ 8). It would have been obvious to one of ordinary skill in the art at the time the claimed invention was made to apply the shipping of Ellison et al to the arrays of Perttunen et al and, based on the location of the end user, ship the arrays to the end user for the obvious benefits of shipping e.g. convenience and availability.

Regarding Claim 11, Perttunen et al teach the method wherein the chemical moieties are biopolymers (Column 4, lines 13-26).

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Regarding Claim 12, Perttunen et al teach the method wherein the biopolymers are DNA (Column 4, lines 13-26).

Regarding Claim 13, Perttunen et al teach the method wherein the memory is a database the method additionally comprising retrieving the array related data for arrays from the memory and communicating the data to a remote locations in response to receiving a communication of associated identifiers from the remote location Column 8, lines 38-54).

Regarding Claim 14, Perttunen et al teach the method wherein for each of the multiple array the corresponding identify map and associated identifier are saved on a memory comprising a portable computer readable storage medium wherein the array is used by an end user (Column 7, line 40-Column 8, line 62, Fig. 10, # 112 & 114, Fig. 11, # 132 & 136 and Fig. 12, # 146) but they do not specifically teach shipping the portable storage mediums to multiple remote locations. However, shipping arrays to end users was well known in the art at the time the claimed invention was made as taught by Ellison et al. Ellison et al teach a similar method for generating an addressable array of chemical moieties comprising depositing moieties onto different regions of the substrate, saving in a memory array related data and shipping the array and forwarding the array related data to a remote location i.e. to shipping address contained in the machine readable information (§ 8). It would have been obvious to one of ordinary skill in the art at the time the claimed invention was made to apply the shipping of Ellison et al to the arrays of Perttunen et al and, based on the location of the end user, ship the arrays to the end user for the obvious benefits of shipping e.g. convenience and availability.

Regarding Claim 15, Perttunen et al teach the method wherein each of the portable storage mediums and the corresponding fabricated array are used by the at the same remote location i.e. end user from which the set of biopolymers used in fabricating the array was received (Column 7, line 40-Column 8, line 62).

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Regarding Claim 16, Perttunen et al teach the method wherein each of the substrates comprise an identification code which identifies array related data e.g. identification code (Column 8, lines 1-19) but they do not teach the identification code comprises a communication address. However, Ellison et al teach the similar method of generating an array wherein the array has applied thereto identification code including a communication address from with the identity map will be communicated i.e. customer (§ 8) wherein the address on the substrate identifies customer and/or billing information. It would have been obvious to one of ordinary skill in the art at the time the claimed invention was made to include the communication address as taught by Ellison et al in the identification code on the substrate of Perttunen et al to thereby identify customer proving the array samples via the address as taught by Ellison et al (§ 8) for the obvious benefits of maintaining correct correlations between the customer and the array.

Response to Arguments

10. Applicant argues that the combination of Perttunen and Ellison does not teach the instantly claimed machine readable instructions for reading or processing. The argument has been considered but is not found persuasive because Perttunen specifically teach that array related data comprising machine readable instruction for reading and/or processing the array (i.e. directing operation of the system) stored in memory prior to exposing the array to a sample (Column 3, lines 54-67).

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11. Claims 45-46 are rejected under 35 U.S.C. 103(a) as being unpatentable over Perttunen et al (U.S. Patent No. 5,968,728, issued 19 October 1999) in view of Ellison et al (U.S. Patent Application Publication No. 2002/0086319A1, filed 13 November 2000) as applied to Claims 1 and 2 above and further in view of Zelany et al (U.S. Patent No. 6,215,894, filed 26 February 1999).

Regarding Claims 45 and 46, Perttunen et al teach a method of generating an addressable array of chemical moieties on a substrate comprising: depositing the moieties onto different regions of the substrate so as to fabricate the array; before the array has been exposed to a sample, saving in a memory array related data said data comprising instructions for reading the array or instruction of processing the array (Column 3, lines 54-67) wherein the array and array related data is utilized by an end user (Column 8, lines 38-41 and Column 9, lines 63-Column 10, lines 2) which clearly suggests that the array is sent from the place of origin but they do not specifically teach shipping the fabricated array and forwarding the array related data to a remote location. However, shipping arrays to end users was well known in the art at the time the claimed invention was made as taught by Ellison et al. Ellison et al teach a similar method for generating an addressable array of chemical moieties comprising depositing moieties onto different regions of the substrate, saving in a memory array related data and shipping the array and forwarding the array related data to a remote location i.e. to shipping address contained in the machine readable information (§ 8). It would have been obvious to one of ordinary skill in the art at the time the claimed invention was made to apply the shipping of Ellison et al to the arrays of Perttunen et al and, based on the location of the end user, ship the arrays to the end user for the obvious benefits of shipping e.g. convenience and availability.

Perttunen et al teach the method wherein the array related data generates mappings of the array and directs operation of the scanning system (Column 3, lines 54-67) but they do not specifically teach that the data includes an indication as to whether a particular type of control

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probe is present on the array. However, control probes were well known in the art at the time the claimed invention was made as taught by Zelany et al who teach that the control probes are useful for calibrating and adjusting the scanner thereby facilitating scanning (Column 3, lines 19-25). It would have been obvious to one of ordinary skill in the art at the time the claimed invention was made to modify the data of Perttunen et al by including data as to whether a control probe is present on the array for the expected benefit of adjusting and calibrating the scanner as taught by Zelany et al (Column 3, lines 19-25).

Response to Arguments

12. Applicant argues that Zelany et al do not fails to make up the deficiencies of Perttunen and Ellison and therefore, the combination does not teach the claimed invention. The argument has been considered but is not found persuasive for the reasons stated above regarding Perttunen and Ellison.

Double Patenting

13. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

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14. Claims 1, 2, 4-16 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-19 of U.S. Patent No. 6,180,351.

Although the conflicting claims are not identical, they are not patentably distinct from each other because both sets of claims are drawn to a method of generating an addressable array and differ only in the patent claims recite the additional method step (a) of receiving from a remote station information on a layout of the array and associated identifier and (e) forwarding a second copy of the local identifier to the remote station. However, the open claim language "comprising" recited in the instant claims encompasses the additional method steps of the patent claims. Furthermore, the patent defines the identifier as containing machine readable identifier containing information regarding processing and/or reading the array (Column 5, lines 41-48 and Column 12, lines 18-35).

Therefore, the instant claims are obvious in view of the patent claims.

15. Claims 10 and 13-16 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 21-24 of copending Application No. 09/775,387. Although the conflicting claims are not identical, they are not patentably distinct from each other because both sets of claims are drawn to a method of generating addressable arrays of biopolymers and differ only in the arrangement of the claim limitations i.e. the limitations of instant claims 13-16 are recited in Claim 21 of the '387 application. Furthermore, the '387 specification defines their claimed identifier as machine readable instructions for reading and processing the array (e.g. missing features, misplaced feature, features of incorrect dimension, other physical characteristics) is stored such that the person reading data from the array will interpret the data correctly (§ 5, 11, 15, 41, 45).

As such, the instant and '387 claims encompass inventions which are not patentably distinct.

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This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Response to Comments

16. Applicant reiterates the arguments provided above regarding the '387 application and the '351 patent. The arguments have been considered but are not found persuasive for the reasons stated above regarding the rejections under 35 U.S.C. 102.

Prior Art

17. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

Zeleny et al U.S. Patent No. 6,215,894, filed 26 February 1999

Chappell U.S. Patent Application Publication No. 2002/0075490A1

Ebersole U.S. Patent No. 4,219,335

Conclusion

18. No claim is allowed.


19. Any inquiry concerning this communication or earlier communications from the examiner should be directed to BJ Forman whose telephone number is (571) 272-0741 until 13 January 2004. The examiner can normally be reached on 6:00 TO 3:30 Monday through Thursday and alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gary Benzion can be reached on (703) 308-1119. The fax phone numbers for the organization where this

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application or proceeding is assigned are (703) 872-9306 for regular communications and (703) 308-8724 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (571) 272-0507.

A handwritten signature in black ink, appearing to be 'BJ Forman', written above the typed name.

BJ Forman, Ph.D.
Primary Examiner
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February 17, 2004